



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

report on the mineral products of Canada.—In the tourmaline of the tourmaline granite of Striegau, Traube²⁵ has discovered pleochroic halos around inclusions of rutile and zircon. The color of the halos is some shade of violet, and is independent of the color of the mineral in which they lie. It disappears upon heating. Garnet, apatite, and quartz inclusions in the same tourmaline are not surrounded by halos.—Among the new instruments, and improvements upon old instruments, used in crystallographic and mineralogical investigations, that have been suggested during the last three months, mention may be made of an apparatus²⁶ for the production of pressure figures in very small mica plates; of a very simple reflection goniometer constructed by Prof. Groth²⁷; of an improved instrument²⁸ for cutting thin sections of minerals in any desired position; and an improved heating apparatus for use with the reflection goniometer, invented and constructed by the well-known mechanic Fuss.²⁹

BOTANY.

Note on a New Species of Actinoceps B. and Br.—In the *Sylloge Fungorum* of Saccardo but a single species of *Actinoceps* is recorded, and this is a native of Ceylon. Consequently it is interesting to discover that another form, undoubtedly belonging to the same peculiar genus of *Hyalostilbæ*, occurs rarely in Minnesota. In April a number of moist chambers were prepared by Mr. E. P. Sheldon in the botanical laboratory of the University of Minnesota. In these chambers a large variety of nutritive substances were placed, and a number of more or less interesting saprophytic fungi have since developed.

The plant, referred to *Actinoceps*, developed upon the glandular side of a putrescent orange-peel, and formed a little colony of somewhat less than a square inch in extent. The surface of this area, upon examination, was found to be clothed with a thin layer of *Bacillus megaterium* De By., together with other saprogenic bacteria. From this thin layer of micro-organisms the *Actinoceps* plants arose in num-

²⁵ *Neues Jahrb. f. Min.*, etc., 1890, I., p. 186.

²⁶ Steenstrup: *Geol. Fören. Förh.*, Stock., 1888, p. 113. Ref. *Zeits. f. Kryst.*, XVII., p. 429.

²⁷ *Zeits. f. Kryst.*, XVII., 1890, p. 396.

²⁸ *Ib.* XVII., 1890, p. 445.

²⁹ *Neues Jahrb. f. Min.*, etc., 1890, I., p. 161.
Am. Nat.—August.—6.

bers, although never so close as to touch each other. The networks of hyphæ at the base of each Actinoceps stipe were found to interlace among the bacilli, and to ramify somewhat widely through the nutritive material. In general the appearance of each stroma was more or less glaucescent, varying in a few individuals to a faint and very light yellow color.

For comparison a transcription of the Saccardian description is given here in English. The original will be found on p. 579 of Vol. IV., and the single species described is "No. 2747."

"Actinoceps B. and Br., Suppl. Fungi of Ceylon . . . Stipe hyaline, cylindrical, composite; hyphæ repeatedly branched and accumulated in a globose head, with radiating spicules; hyphæ sometimes prolonged into radiating, vitreous, granulate spicules, again developed as very slender conidiophores; conidia very minute hyaline.

"*Actinoceps thwaitesii* B. and Br. Stipe 400 to 500 μ in length; head, 140 to 160 μ in diameter; spicules shaped as in sponges, covering the head rather loosely with spines; spore-bearing hyphæ repeatedly branched, sub-flexuose; conidia elliptico-spheroid.

"Hab. In decayed, leathery leaves, Ceylon."

From this it will be seen that the genus Actinoceps differs little from Stilbum, the spicules of the former constituting the diagnostic character. Like Stilbum, the Actinoceps studied in Minnesota has the conidia enclosed within a mucilaginous layer, so that the younger plants generally present a somewhat shining aspect, while the older ones are slightly desiccated, and appear sub-pulverulent.

Comparing the Minnesota Actinoceps with the description of the Ceylonese form certain minor differences in size are noted. Since spore and hypha measurements are omitted in the description of *Actinoceps thwaitesii*, the comparison extends only to the stromatic measurements. While the Ceylonese form shows a stipe 400 to 500 μ in length, that of the Minnesota form is from 700 to 700 μ . The diameter of the head in *Actinoceps thwaitesii* is 140 to 160 μ , while that of the Minnesota form is much larger, measuring from 360 to 400 μ . Additional measurements of the stalk showed its average diameter to be between 45 and 55 μ . From this it is apparent that the Minnesota specimens should be separated from the Ceylonese species, and a description of the American form is appended.

Actinoceps besseyi n. s. Stalk 400 to 700 μ long, 45 to 55 μ in diameter, cylindrical, smooth, hyaline, compacted; head sub-globose, pale glaucescent, armed loosely with projecting spicules, 360 to 420 μ in diameter; spore-bearing hyphæ repeatedly branched, sub-flexuose, 4

μ in diameter, bearing the conidia occogenously. Conidia ellipsoid to elliptico-spheroid, $4 - 5 = 2 - 2\frac{1}{2} \mu$. Spicules with cell-walls somewhat thickened, often septate prolonged, sometimes 100μ beyond the surface of the globose capitulum.

Hab. On putrid orange-skin among bacteria, Minneapolis, Minn.

It should be noted in passing that the specimens of *Actinoceps besseyi* observed by us were sometimes grown over by a cobwebby network of *Diplosporium* filaments, which bore occasional spores, but were collected more abundantly on the wet paper in the bottom of the moist chamber, where they formed a luxuriant growth. The *Diplosporium* was referred doubtfully to *D. album* Bon., from which it differs slightly in the spore measurements.

The *Actinoceps* above described is dedicated to Dr. Charles E. Bessey, the well-known botanist.—CONWAY MACMILLAN, *University of Minnesota*.

Notes on the Canyon Flora of Northwest Nebraska.—Our party left Lincoln June 17th, and arrived at the Pine Ridge Tunnel early on the morning of the 18th. In the walk from there to Crawford about the only thing of interest found was a very large form of *Viola canadense* L. with a very small flower. In many places this was almost entirely killed by *Æcidium viola*. In many cases the plant leaves and stems were twisted all out of shape by the fungus.

From Crawford to Harrison brought nothing of interest. Leaving Harrison we pitched our tent in War Bonnet Cañon. Here new things and new variations were continually turning up. One peculiarity of the cañon flora quite noticeable was the difference—in many cases very pronounced—between the floras of the different side cañons. Many plants were found in one cañon and in that one only, though there were many cañons very similar to it. In one cañon *Pyrola chlorantha* Schwarz was found in a considerable quantity, but in one only. In another *Pyrola secunda* L. grew. Some cañons have any quantity of *Populus tremuloides* Michx., others scarcely any.

In nearly all of the cañons, especially the damper, darker ones, *Corallorhiza multiflora* Nutt. grew quite plentifully; while only the darkest cañons afforded the rare *C. innata* R. Br. In a small cañon at the head of Jim creek was found a lavender-yellow variety of the former species. *Habenaria bracteata* R. Br. grew in abundance along the low banks of all the cañon streams. The dry cliffs and slopes of the cañons were covered with the lovely *Calochortus nuttallii* Torr. and Gray. *Fritillaria atropurpurea* Nutt. occurred plentifully in a few

localities, but was generally out of bloom. *Mertensia lanceolata* D.C. was found growing among the short underbrush of the second banks in War Bonnet Cañon.

The weather was too dry for lichens and most of the fungi. Of the former, several interesting *Cladonia* were found together with two or three species of *Peltigera*. On the north slopes of the dampest cañons *Parmelia olivacea* (L.) Ach., and a sterile form of *Usnea barbata* (L.) Fr., grew very plentifully on the pines everywhere.

Various species of *Æcidium* and *Uromyces* occurred generally in large quantities; the most plentiful being *Æcidium abundans* Pk., *Æcid. clematidis* D.C., *Æcid. grossulariæ* Schum., *Uromyces trifolii* f. *glycyrrhizæ* E. & E., and also *Gymnosporangium clavariiforme* (Jacq.) Rees., I., was found quite plentiful in a small side cañon of the War Bonnet, on *Amelanchier canadensis*. Along the higher lands and buttes above the cañons *Ustilago carices* (Pers.) Fück, was found in large quantities. Out on the Hat Creek Basin *Ustilago hyphodytes* (Schlect) Fr., which is considered a rare species, occurred in considerable quantities on *Stipa comata*. Several interesting rock forms of lichens were found on the rocks cropping out near the edge of the "bad lands;" the most plentiful as well as the most beautiful being *Lecanora rubina* (Vill.) Ach. and *L. rubina* var. *opaca*. Ach., Fr. and *Placodium* Sp., near *P. elegans* (Linta) D.C. Many rocks being literally covered by these with a few others.—TOM A. WILLIAMS, *Ashland High School, Nebraska*.

Botanical News.—Professor McLaren, of the Maryland Agricultural College, has had his copies of Gray's Manual bound in oil cloth, a decided improvement over the soft and rather bibulous cloth cover usually given the book by the publishers. Now if the margins could be trimmed down it would improve it still more. . . . The fourth number of the memoirs of the Torrey Botanical Club is devoted to a paper by Dr. E. Lewis Sturtevant on "Seedless Fruits." Sixty-one species are mentioned in the paper. The general result appears to be that a tendency to seedlessness is an accompaniment of high development. . . . H. S. Jennings published an annotated list of ninety-five parasitic fungi of Texas, in the ninth bulletin of the Texas Agricultural Experiment Station. . . . G. N. Best has examined (Torrey Bulletin for June, 1890) some of the North American roses—those belonging to the group *Cinnamomeæ*,—and among other changes reduces *Rosa arkansana* Porter, to a variety of *Rosa blanda* Ait., as *R. blanda* Ait., var. *arkansana* (Port.) Best. This reduction, it will be remembered, was suggested by Watson five years ago in Proc. Am.

Acad. Arts and Sci., Vol. XX., p. 336. . . . *Masclef's Atlas des Plantes de France utiles, nuisables et ornamentales* has reached Part X., and continues its promise of excellence. The later numbers have contained notably fine colored figures of *Ononis spinosa*, *Medicago sativa*, *Colutea arborescens*, *Pisum sativum*, *Coronilla varia*, *Amygdalus communis*, *Persica vulgaris*, *Prunus spinosa*, and *Cerasus vulgaris*. . . . Parts 44 and 45 of Engler and Prantl's *Die Naturlichen Pflanzenfamilien* continue the Euphorbiaceæ, complete the Myrsinaceæ, Primulaceæ, Plumbaginaceæ, and begin the Sapotaceæ. The last-named order is elaborated by Engler, the others by Pax. . . . Professor Gardiner and Mr. Brace published in the Proc. Acad. Nat. Sci. Phil. an interesting provisional list of the plants of the Bahama Islands. . . . Another of the numerous valuable contributions from the Cryptogamic Laboratory of Harvard University has made its appearance in Proc. Am. Acad. Arts and Sciences, Vol. XXV., p. 53, by Wm. A. Setchell, on the "Structure and Development of *Tuomeya fluviatilis*, a red seaweed (*Florideæ*) intermediate between Lemanea and Batrachospermum. . . . The May number of *Pittonia* is an unusually interesting one, dealing as it does in its peculiarly sprightly way with half a dozen or more topics. The review of the new edition of Gray's Manual contains much plain talking, some of which may be deserved, while much certainly is not.

ZOOLOGY.

Snakes in High Places!—A discussion occurred some time ago in THE NATURALIST upon the question, "Do Snakes Climb Trees?" to which I contributed one or two items. But just now my farmer friend, Hiram Carpenter, who lives three miles out of town, invited me to call at his place and see where he found a snake four feet and three inches in length and one and a half inches in diameter. The swallows nest under the eaves of his barn, which project some twenty inches from the building. The rafters do not run out more than one-half or two-thirds of this distance, the space between them being quite thickly studded with the mud-nests of the swallows. One pleasant day in June his son noticed quite a commotion among the birds, and called him to the spot. They were amazed to see a large snake clinging to the end of a rafter, with its head in one of the nests, evidently devouring the young birds. The reptile was able to cling to the end of the rafter by hugging it tightly, and was only dislodged after some effort.